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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,415	08/20/2001	Charilaos Dalkidis	LNUP:107_US_	5726
7590 03/18/2004			EXAMINER	
Hodgson Russ LLP Intellectual Property Law Group One M & T Plaza Suite 2000 Buffalo, NY 14203-2391			ALEXANDER, LYLE	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 03/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/933,415

Applicant(s)

DALKIDIS ET AL.

Examiner

Lyle A Alexander

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 080201.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 112

Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite what means are intended by "permanently definable functions".

Claim 2 is vague and indefinite what is intended by "combined connection and connection regions...". For the purposes of examination it will be assumed a region where the processing stations can be added or removed.

Claim 3 is confusing how the treatment station can also be a "supply system". For the purposes of examination, it will be assumed the treatment station contains a supply of reagent.

Claims 5-6 are confusing to the function of the "bar for reception and insertion of said modular treatment station ... ". For the purposes of examination it will be assumed there is a related to the position of the module.

Claim 7 is vague and indefinite what structure is intended by "plug-like". For the purposes of examination a structure that securely holds with an unique engagement orientations will be assumed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1743

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6,11-13,15-19 and 21-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Heid et al.

Heid et al. teach an automated apparatus(1) for treating cytological or histological specimens. Column 3 lines 8+ describe the apparatus(1) as computer controlled for automatically running stored and selected treatment programs. The programs provide instructed a transport device to move the samples to individual treatment stations, remove the sample after the appropriate residence time and transport to the next/new treatment station. Each treatment station is selected according to the specific computer program required. The computer control can be set up for the simultaneous, parallel course of different and/or like treatment programs. The apparatus has a housing(1a) with two openings(4,5) that act as loading or unloading stations. The computer processor(31), memory(32), display field(2) and keyboard(3) are all integrated with the

Art Unit: 1743

apparatus(1). A basket with specimen holder baskets is inserted is inserted into the loading station and acts as a transport unit taking the sample to the appropriate treatment station (column 4 lines 1+). The treatments stations(6a-j) are arranged in a two dimensional array. Two horizontal guides(8a-b) facilitate sample transport to the treatment stations(6a-j). The transport device(33-36) has four drives and via interface cards(33-36) the exact position of transport device is known at all times.

The claimed "multiple processing stations" have been read on the taught treatment stations(6a-j) and the claimed "transport device" on the taught transport devices(33-36). The claimed "modular treatment stations" and "combined reception and connection regions each for receiving a corresponding treatment station" have been read on each station(6a-j). Heid et al. teach each treatment station is selected according to the specific computer program and has been read on the claimed "permanently definable function".

Heid et al. teach specific placement of the treatment stations and interface cards(33-36) that define these locations of the treatment stations and permit controlled access to each station. This has been read on the claimed "region, coordinated with said processing stations".

Column 5 lines 9-12 teach the air can be evacuated from housing(1a) which has been read on the claimed "modular treatment station comprises a fan", "... an extraction system for extracting vapors" and "... a central extraction system ...".

The claimed "control system" has been read on the taught computer processor(31), memory(32), display field(2) and keyboard(3).

The claimed "robotic arm" that has "two parallel arm" that are "rotatable about a vertical shaft" and is "adjustable in height" has been read on the taught two horizontal linear guides(8a-b), movable cross bar(9), vertical guide(10) and movable slider(11).

Claims 1-6,11-13,17,19 and 21-33 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Thiem et al. (USP 6,635,225).

Thiem et al. teach an automated apparatus for the cytological/histological staining of tissue samples comprising a transport basket(4) containing multiple slides(2), reagent containers(3), transport mechanism(6), transporting arms(24), sensors(12) and control/logic circuits(24/25). This has been read on the claimed multiple modular processing stations and transport device to move the sample in and out of the processing stations.

Claims 1-13,15-17,19 and 21-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Theim et al. (USP 6,080,365).

Thiem et al. teach an automated apparatus(1) for the cytological/histological staining of tissue samples comprising a plurality of chemical containers(4), turntable(7), a central guide rod(8) with an electrical slip ring(25) power connector that facilitates suction means to evacuate the housing(3), and an object holders(6) to move the slides about within the apparatus(1). This has been read on the claimed multiple modular processing stations and transport device to move the sample in and out of the processing stations.

Claim Rejections - 35 USC § 103

Art Unit: 1743

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-10,14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heid et al. or Thiem et al. (USP 6,635,225)

See Heid et al. and Thiem et al. (USP 6,635,225)supra.

Art Unit: 1743

The art is silent to the claimed plug-like connector stem and electrical contacts on the treatment stations, covers for closing the unused access openings and a turbulence inducing device.

The court decided In re Boesch (205 USPQ 215) that optimization of a result variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well known effects.

Plug like connectors are well known in the art for mating elements securely in a desired orientation and as electric contacts. It would be desirable in a device to use plug like connectors to secure the various elements and use the plug design to only permit the desired elements to be placed in the proper orientations (e.g. the plug on the wrong part will not fit). It would have been within the skill of the art to modify Heid et al. or Thiem et al. (USP 6,635,225) and use a plug like connector to gain the expected and well known results of secure unambiguous placement of the various elements and as electric contacts.

Heid et al. teaches covers (7a-j) to prevent evaporation of solvent from the containers. Covers are well known in the art to prevent evaporation of solvent and to minimize external contamination. It would have been within the skill of the art to further modify Heid et al. or Thiem et al. (USP 6,635,225) and use covers on the unused positions to gain the above advantages.

It is known in the art that turbulence or stirring of a solution is desirable to maintain active chemical species at the reaction interface to facilitate the maximum

Art Unit: 1743

reaction. It would have been desirable to further modify Heid et al. or Thiem et al. (USP 6,635,225) and provide turbulence or stir the solution to gain the above advantages.

Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thiem et al. (USP 6,080,365).

See Thiem et al. (USP 6,080,365) *supra*.

Thiem et al. (USP 6,080,365) is silent to covers for closing the unused access openings and a turbulence inducing device.

The court decided In re Boesch (205 USPQ 215) that optimization of a result variable is ordinarily within the skill of the art. A result effective variable is one that has predictable and well known effects.

Use of a cover to minimize external contamination is a result effective variable. It would have been within the skill of the art to modify Thiem et al. (USP 6,080,365) and use covers on the unused positions to gain the above advantages.

It is known in the art that turbulence or stirring of a solution is desirable to maintain active chemical species at the reaction interface to facilitate the maximum reaction. It would have been desirable to further modify Thiem et al. (USP 6,080,365) and provide turbulence or stir the solution to gain the above advantages.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

Art Unit: 1743

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-43, 1-32, 1-26 and 1-28 of copending Applications No. 09/932,900, 09/793,199, 10/011,674 and 09/932,889 respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are directed to a similar histological apparatus having multiple processing stations, a transport device, loading station and a removal station.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lyle A Alexander
Primary Examiner
Art Unit 1743
